

## MODERN WEB DEVELOPMENT WORKSHOP-2

### Assignment – 1

#### Name of the assignment -Implementation of JavaScript

1. Write a JavaScript program to display digital clock and update clock time in every second.

Hints: use `setInterval(function, milliseconds)` or `setTimeout(function, milliseconds)`

```
date = new Date();
```

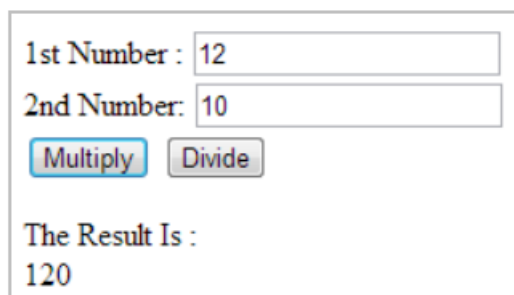
```
h=date.getHours();
```

```
m=date.getMinutes();
```

```
s=date.getSeconds();
```

2. Write a JavaScript function to check whether a given value is a valid URL or not.

3. Write a JavaScript program to calculate multiplication and division of two numbers (input from the user).



The screenshot shows a web form with two input fields. The first field is labeled '1st Number :' and contains the value '12'. The second field is labeled '2nd Number:' and contains the value '10'. Below these fields are two buttons: 'Multiply' (highlighted in blue) and 'Divide' (greyed out). Below the buttons, the text 'The Result Is :' is displayed, followed by the value '120'.

4. Write a JavaScript program to find the missing number.

5. Write a JavaScript function to display whether given number is prime or not.

6. Write a JavaScript function that takes an array of numbers and returns a new array with only the even numbers.
7. Write a JavaScript function to find the sum of all the numbers in an array.
8. Write a JavaScript function that accepts an argument and returns the type.
9. Write a JavaScript program that creates a class called University with properties for university name and departments. Include methods to add a department, remove a department, and display all departments. Create an instance of the University class and add and remove departments.
10. Write a JavaScript program that creates a class `Book` with properties for title, author, and publication year. Include a method to display book details. Create a subclass called 'ebook' that inherits from the 'Book' class and includes an additional property for book price. Override the display method to include the book price. Create an instance of the 'ebook' class and display its details.